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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/225,486	01/06/1999	MITSUHIRO UCHIDA	Q52871	2417

7590

10/24/2002

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EXAMINER

HANNETT, JAMES M

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/225,486

Applicant(s)

UCHIDA ET AL. 

Examiner

James M Hannett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 2 and 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper."

Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

The specification refers to Japanese Unexamined Patent Publication No. 55(1980)-46741) on Page 3, Line 21. This Patent Publication is not included in the information disclosure statement.

The information disclosure statement filed on 1/6/1999 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the reference USPN 5,279,502 Goughnour has no relevance to the application. It has been placed in the application file, but the information referred to therein has not been considered as to the merits.

Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Drawings

The drawings filed on 1/6/1999 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftperson's Patent Drawing Review,"

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PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawing submitted does not give details on the operation of the recording medium, characteristic value extracting means, image-processing means, and reproduction means. Please submit additional drawing which give the details of these components as they are described in the claims.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Image processing method to compensate for color differences due to a type of image sensing device.

Claim Objections

Claims 2 and 15 are objected to because of the following informalities: Claims 2 and 15 state "An the image processing method as claimed in Claim 1". Appropriate correction is required.

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Correction should be "An image processing method as claimed in Claim1"

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 10, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,010,393 Saito.

As for Claim 1, Saito teaches on Column 1, Lines 53-68 the use of an image processing method of performing image processing on a digital signal from images taken from a digital camera. Saito teaches the use of extracting a characteristic value which is chroma information corresponding to the ratio of high-chroma colors from digital image signals obtained by photographing an object. Saito further teaches that this process provides a chroma adjusting method, therefore, carrying out image processing according to the chroma information from the digital signals.

In regards to Claim 10, Saito depicts in Figure 1 that a digital image signal is composed of RGB color signals (Er, Eg, Eb). Saito teaches on Column 1, Lines 53-68 the use of extracting a characteristic value which is chroma information corresponding to the ratio of high-chroma colors from digital image signals obtained by photographing an object. Saito further teaches the method of converting the chroma of the digital image signal, based on the extracted chroma information.

As for Claim 19, Claim 19 is considered substantively equivalent to Claim 1.

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Claims 1, 15, and 17, are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,568,194 Abe.

As for Claim 1, Abe teaches in the abstract an image processing method for carrying out white balance (image processing) on a digital image signal. Abe teaches the use of extracting the luminance signal from digital image signals from two images of subjects photographed by a digital camera. Abe further teaches the use of carrying out image processing according to the luminance value on the digital image signals to perform a white balance adjustment.


In regards to Claim 15, Abe teaches in the abstract the use of extracting the luminance signal from digital image signals from two images of subjects photographed by a digital camera. Abe teaches on Column 3, Lines 25-44 that the luminance signal is extracted from an image wherein pixel data from an original image is divided into N blocks, each of which is composed of an 8X8 matrix of pixels. This block conversion circuit creates a thumbnail image. Therefore, the extraction of the characteristic value is extracted from a thumbnail image.

As for Claim 17, Abe teaches in the abstract the use of recording means or memory for recording the digital image signals to memory.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.



The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,464,173 Tretter.

In regards to Claim 1, Tretter teaches on Column 5, Lines 49-60 the use of an image processing method of carrying out image processing on digital image signals. Tretter teaches on Column 6, Lines 8-15 the use of extracting a property from an image such as luminescence from digital image signals and carrying out contrast enhancement according to the extracted data.

In regards to Claim 6, Tretter teaches on Column 6, Lines 26-35 the method of using a histogram generator to count the number of pixels having each value in the range of values allowable for the particular property for contrast adjustment of the images. Therefore, this teaches the use of extracting the characteristic value based on a histogram of each digital image signal.

As for Claim 7, Tretter teaches on Column 12, Lines 13-24 that when luminance values are composed of color signals, overflow is prevented by enabling a contrast enhancer to use chrominance values for each pixel to set a luminance threshold. Tretter teaches if the remapped luminance exceeds the threshold for a given pixel, the pixel luminance is set to a threshold value. Therefore, eliminating high saturation pixels.

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As for Claim 8, Tretter teaches on Column 13, Lines 13-28 an image processing method wherein the contrast of an image is converted based on a characteristic value of an image represented by a digital image signal.

In regards to Claim 9, Tretter teaches on Column 13, Lines 13-28 an image processing method wherein the contrast of an image is converted based on a characteristic value of an image represented by a digital image signal.

Claims 1, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,097,845 Ng et al.

As for Claim 1, Ng et al teaches on Column 2, Lines 34-43 the use of an image processing method for carrying out image processing on a digital image signal. Ng et al teaches on Column 4, Lines 24-35 the method of extracting the relative luminance value representative of an image characteristic from digital signals of images photographed by a digital camera. Ng et al further teaches on Column 4, Lines 24-35 the use of carrying out image processing according to the characteristic value on a digital image signal.

In regards to Claim 16, Ng et al teaches on Column 3, Lines 56-64 that a thumbnail image can be generated based on the average DC level of each square sub-region generated during JPEG compression.

Claims 1-5, and 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 5,767,983 Terashita.

As for Claim 1, Terashita teaches on Column 4, Lines 12-33 an image processing method for carrying out image processing on a digital image signal. Terashita teaches the

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method of extracting film characteristic data from image signals from a plurality of image frames. Terashita further teaches the use of carrying out image processing according to the characteristic value on the digital image signals.

As for Claim 2, Terashita teaches on Column 7, Lines 15-66 and on Column 10, Lines 26-39 that when each of the digital image signals is composed of RGB color signals, the characteristic data is a total average of averages of the digital image signals. Terashita further teaches the method of converting RGB color signals in a digital image signal representing an image of a gray subject to be equalized, based on the total average

In regards to Claim 3, Terashita teaches on Column 16, Lines 6-22 that when the digital image signals are composed of RGB color signals, photometric data for each color signal in each pixel in each of the digital image signals is calculated. Terashita teaches on Column 24, Lines 6-20 that weighting coefficients can be set respectively to characteristic data which is data from the photometric data.

In regards to Claim 4, Terashita teaches on Column 3, Lines 5-21 an image processing method wherein an average density is multiplied by a weighting factor. Terashita teaches on Column 7, Lines 6-16 that the weight-factors can be set predetermined weighting coefficients.

As for Claim 5, Terashita teaches on Column 3, Lines 5-21 an image processing method wherein an average density is multiplied by a weighting factor. Terashita teaches on Column 7, Lines 6-16 that the weight-factors can be set predetermined weighting coefficients.

As for Claim 11, Terashita teaches on Column 16, Lines 6-22 that when the digital image signals are composed of RGB color signals, photometric data for each color

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signal in each pixel in each of the digital image signals is calculated. Terashita teaches on Column 16, Lines 46-55 a that the characteristic value can be a value of the photometric data relative to the tricolor average of the signals. Terashita further teaches that a table value prepared from the sets of photometric data may be used.

As for Claim 12, Terashita teaches on Column 16, Lines 6-22 that when the digital image signals are composed of RGB color signals, photometric data for each color signal in each pixel in each of the digital image signals is calculated.

Terashita teaches on Column 16, Lines 46-55 a that the characteristic value can be a value of the photometric data relative to the density of one color signal. Terashita further teaches that a table value prepared from the sets of photometric data may be used.

In regards to Claim 13, Terashita teaches on Column 40, Lines 30-37 that it is preferred the characteristic value is found based on the digital image signal from which high saturation pixels have been eliminated.

In regards to Claim 14, Terashita teaches on Column 40, Lines 30-37 that it is preferred the characteristic value is found based on the digital image signal from which high saturation pixels have been eliminated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,568,194 Abe in view of USPN 5,682,573 Ishikawa et al.

Abe teaches the claimed invention as discussed in Claim 17, Abe does not teach the use of recording a flag indicating whether or not the digital image signal has been corrected after photographing in the recording medium together with the digital image signal. Abe further does not teach the method of extracting the characteristic value and performing image processing only on signals having the flag.

Ishikawa et al teaches on Column 20, Lines 35-51 a correcting operation wherein a flag indicating whether or not a digital image signal has been corrected after photographing in the recording medium together with the digital image signal. Ishikawa et al further teaches the method of extracting the characteristic value and performing image processing only on signals having the flag present.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the flag indicating method of Ishikawa et al to the signal processing method of Abe in order to allow the method of extracting the characteristic value and performing image processing only on signals having the flag present.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 5,754,316 Hayashi et al discloses a method to correct color deviations resulting from color filter characteristics; USPN 5,689,590 Shirasawa et al Discloses a color image processing apparatus; USPN 5,663,772 Uehara et al discloses a method for Gray-level image processing with weighting factors to reduce flicker; USPN

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5,696,840 Usami discloses an image processing apparatus; USPN 5,497,431 Nakamura teaches a method of extracting characteristic image data and color data conversion device for an image processing apparatus.

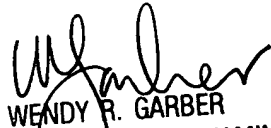
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hannett whose telephone number is 703-305-7880. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-842-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is 703-308-6789.

James Hannett
Examiner
Art Unit 2612

JMH
October 16, 2002


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
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